

Appl. No. 10/815,471
Amdt. dated April 25, 2006
Reply to Office Action of January 4, 2006

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A locking assembly for coupling a first member including a receiving area, and a second member having a receiving region, the locking system comprising:

(a) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together;

(b) a biasing element;

(c) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position; and

(d) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first forward direction moves the interfering portion of the interference element upward into the receiving area of the first member and wherein movement of the wedge shaped structure in a second backward direction causes the interfering portion of the interference element to move downward out of the receiving area of the first member.

Claim 2. (original) The locking assembly of claim 1 wherein the first member is a tooth and the second member is an adapter.

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Claim 3. (currently amended) ~~The locking assembly of claim 1~~ A locking assembly for coupling a first member including a receiving area, and a second member having a receiving region, the locking system comprising:

(a) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together;

(b) a biasing element;

(c) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position; and

(d) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first direction moves the interfering portion of the interference element into the receiving area of the first member and wherein movement of the wedge shaped structure in a second direction causes the interfering portion of the interference element to move out of the receiving area of the first member, wherein the cam includes a main portion including a recess and a pin coupled to the main portion.

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Claim 4. (currently amended) ~~The locking assembly of claim 1~~ A locking assembly for coupling a first member including a receiving area, and a second member having a receiving region, the locking system comprising:

(a) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together;

(b) a biasing element;

(c) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position; and

(d) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first direction moves the interfering portion of the interference element into the receiving area of the first member and wherein movement of the wedge shaped structure in a second direction causes the interfering portion of the interference element to move out of the receiving area of the first member, further comprising a plunger between the biasing element and a portion of the wedge shaped structure.

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Claim 5. (currently amended) ~~The locking assembly of claim 1~~ A locking assembly for coupling a first member including a receiving area, and a second member having a receiving region, the locking system comprising:

(a) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together;

(b) a biasing element;

(c) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position; and

(d) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first direction moves the interfering portion of the interference element into the receiving area of the first member and wherein movement of the wedge shaped structure in a second direction causes the interfering portion of the interference element to move out of the receiving area of the first member, wherein the interference element includes a sealing portion.

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Claim 6. (currently amended) ~~The locking assembly of claim 1~~ A locking assembly for coupling a first member including a receiving area, and a second member having a receiving region, the locking system comprising:

(a) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together;

(b) a biasing element;

(c) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position; and

(d) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first direction moves the interfering portion of the interference element into the receiving area of the first member and wherein movement of the wedge shaped structure in a second direction causes the interfering portion of the interference element to move out of the receiving area of the first member, further comprising an o-ring around a main portion of the cam.

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Claim 7. (currently amended) A locking system comprising:

- (a) a first member including a receiving area;
- (b) a second member including a receiving region; and
- (c) a locking assembly for coupling the first member and the second member

having a receiving region, wherein the locking system comprises (i) an interference element including an interfering portion that is received within the receiving area of the first member when the locking assembly couples the first member and the second member together, (ii) a biasing element, (iii) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position, and (iv) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first forward direction moves the interfering portion of the interference element upward into the receiving area of the first member and wherein movement of the wedge shaped structure in a second backward direction causes the interfering portion of the interference element to move downward out of the receiving area of the first member.

Claim 8. (original) The locking system of claim 7 wherein the first member is a tooth and the second member is an adapter.

Claim 9. (original) The locking system of claim 7 wherein the cam includes a main portion including a recess and a pin coupled to the main portion.

Claim 10. (original) The locking system of claim 7 comprising a plunger between the biasing element and a portion of the wedge shaped structure.

Claim 11. (original) The locking assembly of claim 7 wherein the interference element includes a sealing portion.

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Claim 12. (original) The locking assembly of claim 7 further comprising an o-ring around a first portion of the cam.

Claim 13. (currently amended) A method of using a locking system comprising:

- (a) obtaining a first member including a receiving area;
- (b) obtaining a second member including a receiving region; and
- (c) using a locking assembly to couple the first and second members together,

wherein the locking assembly comprises (i) an interference element including an interfering portion that is received within the receiving area of the first member when the locking system couples the first member and the second member together, (ii) a biasing element, (iii) a cam, wherein the cam is adapted to cause the biasing element to be in a biased position or an unbiased position, and (iv) a wedge shaped structure, wherein the wedge shaped structure is configured to be received in the receiving region of the second member, and wherein movement of the wedge shaped structure in a first forward direction moves the interfering portion of the interference element upward into the receiving area of the first member and wherein movement of the wedge shaped structure in a second backward direction causes the interfering portion of the interference element to move downward out of the receiving area of the first member.

Claim 14. (original) The method of claim 13 wherein the first member is a tooth and the second member is an adapter.

Claim 15. (original) The method of claim 13 wherein the cam includes a main portion including a recess and a pin coupled to the main portion.

Claim 16. (original) The method of claim 13 comprising a plunger between the biasing element and a portion of the wedge shaped structure.

Claim 17. (original) The method of claim 13 wherein the interference element includes a sealing portion.

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Claim 18. (original) The method of claim 13 further comprising an o-ring around a first portion of the cam.

Claim 19. (new) A locking system comprising:
the locking assembly of claim 3;
the first member, wherein the first member is a tooth; and
the second member, wherein the second member is an adapter, and wherein the first member and the second member are secured together with the locking assembly.

Claim 20. (new) A locking system comprising:
the locking assembly of claim 4;
the first member, wherein the first member is a tooth; and
the second member, wherein the second member is an adapter, and wherein the first member and the second member are secured together with the locking assembly.